Attorney Docket No. 0862.1463



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re Patent Application of:

Masaki YAMAMOTO

Application No.: 09/890,143 Group Art Unit: 2882

Filed: July 26, 2001 Examiner: Chih Cheng G. Kao

Confirmation No.: 7584

For: OPTICAL ELEMENT SUCH AS MULTILAYER FILM REFLECTION MIRROR,

PRODUCTION METHOD THEREFOR AND DEVICE USING IT

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 CFR § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

1.	Enclosures	accompanying this Information Disclosure Statement are:
	1a. 🗵	Form PTO-1449.
	1b. 🛚	Copy(ies) of IDS citation(s), except for U.S. Patents and U.S. Patent Application publications.
	1c. 🗌	English language copy of a communication(s) from a foreign Patent Office
	1d. 🔲	or a PCT International Search Report. English language translation (complete, Abstract or relevant portion(s)) attached to non-English language publications as indicated on the attached Form PTO-1449.
	1e. 🗵	Explanations of Relevancy of References (ATTACHMENT 1(e), hereto).
	1f. 🔲	List of Copending Applications (ATTACHMENT 1(f), hereto).
	1g. 🔲	List of Additional Submitted Documents (ATTACHMENT 1(g), hereto).
2.	☐ This Infor	mation Disclosure Statement is filed under 37 CFR § 1.97(b):
		(Check either Item 2a or 2b or 2c or 2d)
	2a. 🗌	Within three months of the filing date of a national application;
	2b. 🔲	Within three months of the date of entry of the national stage as set forth in
	_	§ 1.491 in an international application.
	2c. 🗌	Before the mailing of a first Office Action on the merits; or
	2d. 🔲	Before the mailing of a first Office Action after the filing of a Request for Continued Examination under § 1.114



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3.	specified Action un	mation Disclosure Statement is filed under 37 CFR § 1.97(c) after the period in paragraph 2 above but before the mailing date of any of a Final Office der § 1.113, a Notice of Allowance under § 1.311 or an action that otherwise osecution in the application, AND
		(Check either Item 3a or 3b; Item 3b to be checked if any reference known for more than 3 months)
	3a.	The § 1.97(e) Statement in Item 5 below is applicable; OR The \$180.00 fee set forth in 37 CFR § 1.17(p) is: enclosed.
		to be charged to Deposit Account No. 19-3935.
4.		mation Disclosure Statement is filed under 37 CFR § 1.97(d) after the period in paragraph 3 above, but on or before payment of the Issue Fee, AND
	4a.	The § 1.97(e) Statement in Item 5 below is applicable; AND The \$180.00 fee set forth in 37 CFR § 1.17(p) is: enclosed.
		to be charged to Deposit Account No. 19-3935.
5.	Statemen	t under § 1.97(e) (applicable if Item 3a or Item 4a is checked) (Check either Item 5a or 5b)
	5a. 🗌	In accordance with 37 CFR § 1.97(e)(1), it is stated that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
	5b. 🗌	In accordance with 37 CFR § 1.97(e)(2), it is stated that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known by any individual designated in § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
6.	This is a (continuation/divisional/continuation-in-part application under 37 CFR §
		(Check appropriate Items 6a and/or 6b)
	6a. 🗌	Copies of the publications listed on the attached Form PTO-1449 which were previously cited in prior application Serial No, filed on, and which is relied on for an earlier effective filing date for the subject application under 35 U.S.C. § 120, have been omitted pursuant to 37 CFR § 1.98(d).
	6b. 🗌	Copies of the publications listed on the attached Form PTO-1449 which were not previously cited in prior application Serial No, filed on, and which is relied on for an earlier effective filing date for the subject

Serial No.: 09/890,143

7.	\boxtimes	This	is a l	Request for Continued Examination under 37 CFR § 1.114.
				(Check either Item 7a or 7b)
		7a. 7b.		The Issue Fee has not been paid. A Petition to Withdraw from issue under 37 CFR § 1.313(c) is filed concurrently herewith or has been granted. A Request for Continued Examination under 37 CFR § 1.114, after payment of the Issue Fee, is proper in accordance with 37 CFR § 1.114(a), respectively.
8.		This	is a S	Supplemental Information Disclosure Statement.
				(Check either Item 8a or 8b)
		8a.		This Supplemental Information Disclosure Statement under 37 CFR § 1.97(f) supplements the Information Disclosure Statement filed on A bona fide attempt was made to comply with 37 CFR § 1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental IDS can
		8b.		be considered as if properly filed on This Supplemental Information Disclosure Statement is timely filed within one (1) month of the Notice under 37 CFR §§ 1.97 and 1.98, mailed
9.				nce with 37 CFR § 1.98, a concise explanation of what is presently to be the relevance of each non-English language publication is:
				(Check appropriate Items 9a, 9b, 9c and/or 9d)
		9a.		satisfied for the non-English language publication(s) cited on the enclosed "English language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP § 609, Minimum Requirements for an Information Disclosure Statement, Part A(3): Concise Explanation of Relevance, 8th Ed., Rev. 2)
		9b. 9c. 9d.		set forth in the application. satisfied for the non-English language publication(s) indicated on the attached Form PTO-1449 as having an English language translation (complete or relevant portion(s)) attached thereto. enclosed as Attachment 1(e), hereto.
		Ju.	Ü	Cholosed do / Machinette 1(c), hereto.
10.	be se	e, mat earch	terial repoi	n is made that the information cited in this Statement is, or is considered to to patentability nor a representation that a search has been made (other than t(s) from a counterpart foreign application or a PCT International Search bmitted herewith). 37 CFR §§ 1.97(g) and (h).

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11. The Commissioner is authorized to credit any overpayment or charge any additional fee required under 37 CFR § 1.17 for this Information Disclosure Statement to Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Dated: 1201 New York Ave., N.W., 7th Floor

Washington, D.C. 20005 Telephone: (202) 434-1500 Facsimile: (202) 434-1501 David M. Pitcher

Registration No. 25,908

EXPLANATIONS OF RELEVANCY
OF REFERENCES

	ATTACHMENT 1(e)
ATTORNEY DOCKET NO.	APPLICATION NO.
0862.1463	09/890,143
FIRST NAMED INVENTOR	
Masaki YAMAMOTO	
FILING DATE	GROUP ART UNIT
July 26, 2001	2882

References AC & AD – as presently advised, References AC & AD are publications published after the corresponding International Application No. PCT/JP00/05571 (August 18, 2000) for the subject national stage §371 application.

			Sheet 1 of 1	
FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE	ATTORNEY DOCKET NO.	APPLICATION NO.	
	PATENT AND TRADEMARK OFFICE	0862.1463	09/890,143	
	4.T.O.V. D.I.O.V. O.O.V.D.E. O.T.4.T.E. 4.C.V.T.	FIRST NAMED INVENTOR		
TO ENFORM	ATION DISCLOSURE STATEMENT	Masaki YAMAMOTO		
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NOV O 7 2006 B	(Use several sheets if necessary)	July 26, 2001	2882	
E/	U.S. PATENT DOCUME	NTS		

7	INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE	
		AA							

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	TRANSLA YES	ATION NO	ABSTRACT	
	AB							

OTHER REFEREI	NCES (Including Author, Title, Date, Pertinent Pages, Etc.)	TRANSL YES	ATION NO
AC	M. Yamamoto, "Sub-nm FIGURE ERROR CORRECTION OF AN EUV MULTILAYER MIRROR BY ITS SURFACE MILLING", ^{7th} International Conference on Synchrotron Radiation Instrumentation, Book of Abstracts (August 21-25, 2000), pp.1-2.	х	
AD	AD M. Yamamoto, "Sub-nm figure error correction of an extreme ultraviolet multilayer mirror by its surface milling", Nuclear Instruments and Methods in Physics Research A 467-468 (2001), pp. 1282-1285.		
AE	M. Yamamoto and T. Namioka,"Layer-by-layer design method for soft-x-ray mulitlayers", Applied Optics, Vol. 31, No. 10, 1 April 1992, pp. 1622-1630.	х	
AF	J. Braat, "Phase correcting layers in EUV imaging system for microlithography", Proceedings of the OSA TOPS on Extreme Ultraviolet Lithography, Optical Society of America (1996), pp.152-155.	х	
AG	H. Kinoshita, et al., "Soft x-ray reduction lithography using multilayer mirrors", J. Vac. Sci. Technol. B 7 (6), Nov/Dec 1989, pp. 1648-1651.	х	
АН	C. Gwyn et al., "Extreme ultraviolet lithography", J. Vac. Sci. Technol. B 16(6), Nov/Dec 1998, pp. 3142-3149.	х	
AI	R. Stuik, et al., "Peak and integrated reflectivity, wavelength and gamma optimization of MO/Si, and Mo/Be multilayer, multilayer, multilelement optics for extreme ultraviolet lithography", J. Vac. Sci. Technol. B 17(6), Nov/Dec 1999, pp. 2998-3002.	x	
AJ	P. H. Berning, "Physics of Thin Films", Advances in Research and Development, Volume 1 (1963), pp. 84-100.	х	

FX.	Δ١	M	N	F	R
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DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.